

ppm.; *Crocallis elinguaris* L., 18 lead in ppm.; *Agrotis exclamatoris* L., 8 lead in ppm.; *A. puta puta* Hb., 34 lead in ppm.; *Mythimna impura impura* Hübn., 6 lead in ppm.; *M. pallens* L., 9 lead in ppm.; *Mesapamea secalis* L., 12 lead in ppm.

The figures indicate a low level of contamination by lead pollution in the majority of species examined. However, two species (*C. elinguaris* and *A. puta puta*) yielded figures which are somewhat disturbing—equalling contamination levels found in plant eating insects sampled from alongside American state highways.

To put in perspective the direct danger to lepidopterous larvae through lead poisoning, experiments on silk worms (*Bombyx mori*) in Japan (Matsubara, Fujiyoshi, Kimura, Yukio, 1974) revealed the following responses: (a) 200 ppm. lead—inhibition of growth. (b) 1,000 ppm. lead—some deaths. (c) 3,000 ppm. lead—total lethality.

Captured, as the moths were, from the northern urban periphery of Brighton in Sussex, it is to be expected that a mixture of larval environments were experienced with a possible predilection towards relatively lead free circumstances—with higher lead levels to be found by selective larvae collecting.

In overall conclusion, it would appear that there is considerable leeway before the direct consequences of lead pollution are to be noticed in lepidopterous larvae, at least in Sussex—given the same interspecies susceptibility. Nevertheless, this does not diminish the apparent threat to similar or higher forms of wild life at more elevated stages in food chains, by biological concentration.

References

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- Price, P. W., Ratchie, B. J. and Gentry, D. A., 1974. Environmental Entomology. Lead in Terrestrial Arthropods. *Evidence for Biological Concentration*, 3, part 3, 370-372.
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AUTUMN MIGRANTS AT BRADWELL-ON-SEA, ESSEX, 1977.
 — The following species were noted here at m.v. traps—
 October: 14th, *Mythimna vitellina* Hb. (♀), *Agrotis ipsilon* Hufn. (29); 15th, *Peridroma saucia* Hb. (1), *A. ipsilon* (94); 16th, *P. saucia* (1), *A. ipsilon* (58); 17th, *A. ipsilon* (88); 18th, *P. saucia* Hb. (1), *A. ipsilon* (46), *Orthonama obstipata* F. (♀); 19th, *Palpita unionalis* Hb. (♂), *A. ipsilon* (18), *O. obstipata* (♂); 20th, *M. vitellina* (♂), *O. obstipata* (♂, ♀), *P. unionalis* (♂), *A. ipsilon* (13th); 21st, *P. unionalis* (♂, ♀), *A. ipsilon* (7); 22nd, *Udea ferrugalis* Hb. (♂), *Cyclophora puppillaria* Hb. (♂); 27th, *O. obstipata* (♀), *A. ipsilon* (4).
 November: 6th, *P. unionalis* (♂), *A. ipsilon* (1). — A. J. DEWICK, Curry Farm, Bradwell-on-Sea, Essex.